Friedrich Schiller University is a traditional university with a strong research profile rooted in the heart of Germany. As a university covering all disciplines, it offers a wide range of subjects. Its research is focused on the areas Light–Life–Liberty. It is closely networked with non-research institutions, research companies and renowned cultural institutions. With around 18,000 students and more than 8,600 employees, the university plays a major role in shaping Jena's character as a cosmopolitan and future-oriented city.

The German Centre for integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig seeks to fill the position of a

Scientific Employee on the iDiv Flexpool Project: “Hidden key players in trophic interactions: combining molecular approaches and multispectral imaging flow cytometry for quantification of protists (ProtistQuant)”

commencing on 1 January 2024 or at the earliest opportunity thereafter and limited to 31 December 2025. The position is offered with reservation of possible budgetary restrictions and dependent upon final approval of funding.

This is a full-time position with 40 hours per week; place of work is the Aquatic Geomicrobiology Group of the Institute of Biodiversity, FSU Jena.

Background:

The German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig is a National Research Centre funded by the German Research Foundation (DFG). Its central mission is to promote theory-driven synthesis and data-driven theory in this emerging field. It is jointly hosted by the Martin Luther University Halle-Wittenberg (MLU), the Friedrich Schiller University Jena (FSU), the University of Leipzig (UL), and the Helmholtz Centre for Environmental Research (UFZ). For more information please visit: www.idiv.de.

This project aims at the development of a novel approach to quantify selected protistan lineages by combining multispectral imaging flow cytometry (MIFC) at iDiv’s iCyt platform with molecular methods. Protists represent a large fraction of eukaryotic diversity and play a central role in food webs. However, assessment of their role in trophic interactions has been hampered by our limited ability to quantify protists from molecular data. Using mock communities of increasing complexity, we will link the estimated taxon-specific abundances retrieved by quantitative PCR, metabarcoding, and cell counts (MIFC) to a lineage-specific calibration model. MIFC will also be used to generate quantitative data on protistan consumption rates of bacterial prey. We aim to apply our approach to elucidate the role of protists in groundwater food webs and focus on ecologically relevant lineages present in groundwater. Our activities will be closely linked to the Collaborative Research Center 1076 AquaDiva (FSU).

Your responsibilities:

- Establishment of a workflow for quantification of protists using multispectral imaging flow cytometry (MIFC), using selected pure cultures of protist species
- Setup of protist enrichment cultures from environmental samples (groundwater) and maintenance of (already existing) pure cultures
- Extraction of nucleic acids from groundwater samples and cultures of protists
- Preparation of samples for amplicon sequencing targeting 18S rRNA genes and data analysis
- Establishment of quantitative PCR assays for specific protist groups
- Writing of scientific publications
• Presentation of scientific results at national and international conferences and local conferences (iDiv conference)

Your profile:

• Scientific University degree (Diploma/M.Sc.) in a project-related field (e.g., ecology, microbiology), a doctoral degree is desirable
• At least three years of experience in research and in the publication of scientific results
• Expertise and experience in the analysis of amplicon sequencing data
• Skills in basic methods of molecular microbial ecology, e.g., DNA extraction, PCR, and quantitative PCR
• Experience in flow cytometric analysis would be desirable but is not mandatory
• Experience in the handling of microbial cultures, especially protistan cultures, would be desirable but is not mandatory
• Interest and ability in statistical analysis using R
• Excellent English communication skills (spoken and written)
• Team-oriented individuals with interest and ability in interdisciplinary research and organizational skills

We offer:

• Work in a dynamic, international, and interdisciplinary environment in the beautiful city of Jena
• Opportunities to develop and advance scientific networks
• Flexible working hours and a family-friendly working environment
• Participation in our iDiv career support programme
• Attractive fringe benefits, e.g. capital formation benefits (VL), Job Ticket (benefits for public transport), and an occupational pension (VBL)
• Remuneration based on the provisions of the Collective Agreement for the Public Sector of the Federal States (TV-L) at salary scale E13—depending on the candidate’s personal qualifications—, including a special annual payment in accordance with the collective agreement
• 30 days of vacation per calendar year plus two days off on December 24 and 31

The project will be supervised by Dr. Martina Herrmann (FSU) in collaboration with Dr. Susanne Dunker (iDiv), Prof. Dr. Martin Schlegel (iDiv/University of Leipzig), Prof. Dr. Antonis Chatzinotas (Helmholtz Center for Environmental Research -UFZ, Leipzig) and Dr. Anna Maria Fiore-Donno (University of Cologne), including research stays in their laboratories. In addition, we will collaborate with Prof. Dr. Kirsten Küsel, head of the Cluster of Excellence, “Balance of the Microverse”, at the FSU.

Queries concerning the application process should be directed to flexpool@idiv.de, for project-related questions, please contact Dr. Martina Herrmann (martina.herrmann@uni-jena.de).

All applications should include:

• Cover letter describing the motivation for the project, research interests, and relevant experience
• Complete curriculum vitae including names and contact details of at least two scientific references
• digital copy of master and PhD (if applicable) certificate or equivalent

Candidates with severe disabilities will be given preference in the case of equal qualifications and suitability.
Are you eager to work with us? Kindly send your application, quoting the vacancy ID 218/2023, via our application portal at https://apply.idiv.de by 18 August 2023. While we prefer applications via this portal, hard-copy applications may also be sent to: German Centre for Integrative Biodiversity Research –iDiv (Halle-Jena-Leipzig), Scientific Networks, Puschstr. 4, 04103 Leipzig.

iDiv is committed to establishing and maintaining a diverse and inclusive community that collectively supports and implements our mission to do great science. We will welcome, recruit, develop, and advance talented staff from diverse genders and backgrounds.

For further information for applicants and the information on the collection of personal data, please refer to https://www.uni-jena.de/en/job-market